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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,080	03/11/2004	Masaki Ichihara	P/1878-189	5653

2352 7590 09/27/2006
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EXAMINER

VO, NGUYEN THANH

ART UNIT PAPER NUMBER

2618

DATE MAILED: 09/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/798,080	Applicant(s) ICHIHARA, MASAKI	
	Examiner Nguyen T. Vo	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-22, 24-36 and 38-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 9, 10, 13-19, 21, 22, 24, 25, 28-34, 36, 38, 39 and 42-44 is/are rejected.
- 7) ☒ Claim(s) 5, 11, 12, 20, 26, 27, 35, 40 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-4, 6-7, 9-10, 13-14, 16, 18-19, 21-22, 24-25, 28-29, 31, 33-34, 36, 38-39, 42-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Daughtry (5,875,388, cited by examiner).

As to claims 1, 16, Daughtry discloses a frequency correction method for keeping a frequency of a controllable oscillator 134 (see figure 1) within a proper range (see column 3 line 56 to column 4 line 4), the frequency correction method comprising a first step of recording past control information for said oscillator (see column 12 lines 17-25; column 13 lines 37-62); a second step of calculating a secular change of the frequency of said oscillator from the past control information (see column 13 lines 41-44; column 16 lines 18-56); and a third step of giving to said oscillator new control information for correcting the calculated secular change (see column 13 lines 41-44; column 16 lines 18-56; column 18 lines 13-25). Daughtry further discloses that the past control information is recorded when a temperature of the oscillator is stationary (see column 16 lines 57-61).

As to claims 3-4, 18-19, 33-34, see Daughtry, column 3 line 54 to column 4 line 4; column 4 lines 54-65; column 16 lines 18-56.

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As to claims 6, 21, see Daughtry, column 17 lines 18-24; column 18 lines 13-38.

As to claims 7, 22, 36, see Daughtry, column 16 lines 19-22.

As to claims 9, 24, 38, see Daughtry, column 16 lines 57-61.

As to claims 10, 25, 39, see Daughtry, column 16 lines 19-26.

As to claims 13-14, 28-29, 42-43, see Daughtry, column 16 lines 19-22; column 18 lines 14-25. It is noted that since Daughtry discloses updating control voltage Daughtry would inherently disclose "deleting past control information" as claimed.

As to claim 31, it is rejected for the similar reasons as set forth in claim 1. In addition, Daughtry further discloses a mobile terminal 110 (see figures 1 and 2) comprising receiving means 120; local signal generating means (see numerals 220 and 222 in figure 2); a reference oscillator 134 (see figure 2); a demodulating means 122; frequency error detecting means 136; and summing means 240 for correcting the frequency error.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 17, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daughtry in view of applicant's submitted IEEE Article "Adaptive Temperature Compensation of GPS Disciplined Quartz and Rubidium Oscillators" of Bruce M. Penrod (hereinafter simply referred to as Penrod).

As to claims 2, 17, 32, Daughtry does disclose calculating the secular change (i.e., aging change) as set forth above. Daughtry, however, fails to disclose calculating the secular change by using an approximate value obtained from an average of pieces of the past control information as claimed. Penrod discloses calculating the secular change by using an approximate value obtained from an average of pieces of the past control information (see page 981, right column). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Penrod to Daughtry, in order to calculate the secular change more quickly (as suggested by Penrod on page 982, left column).

5. Claims 15, 30, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daughtry.

As to claims 15, 30, 44, Daughtry discloses updating control information as set forth above (see column 18 lines 13-25). Daughtry, however, fails to disclose that the new control information is overwritten on the oldest past control information after the number of pieces of the past control information recorded reaches a predetermined number as claimed. The examiner takes Official Notice that such a teaching is known in the art in order to avoid overloading of the memory capacity, and to replace the oldest information with the newest information. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daughtry as claimed, in order to avoid overloading of the memory capacity, and to replace the oldest control information with the newest control information.

Allowable Subject Matter

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6. Claims 5, 11-12, 20, 26-27, 35, 40-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 5, 20, 35, the applied references fail to disclose or render obvious that a difference between an ideal value predetermined on condition that the secular change does not exist and the approximate value is set as the secular change.

As to claims 11-12, 26-27, 40-41, the applied references fail to disclose or render obvious recording the past control information as specified in the claims.

Response to Arguments

7. Applicant's arguments filed 9/19/2006 have been fully considered but they are not persuasive.

Regarding independent claims 1, 16 and 31, applicant argues that Daughtry fails to disclose that the past control information is recorded when a temperature of the oscillator is stationary because the past control information in Daughtry is recorded when a temperature of the oscillator is within a range of between 15-35 degrees (see column 16 lines 57-61). The examiner, however, disagrees. **According to the present specification on page 23 lines 5-9, a temperature is called stationary when it is within a range.** Therefore, Daughtry reads on the claimed limitation.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen T. Vo whose telephone number is (571) 272-7901. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nguyen Vo

Nguyen Vo
9/25/2006

NGUYENT.VO
PRIMARY EXAMINER